



Attorney: [illegible]
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WARF-0002
Laughon, Allen S.
09/810,385
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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for identifying compounds that directly interact with a Smad protein or a Smad protein co-repressor to prevent protein-protein or protein-DNA interactions required for repression of transcription induced by TGF- β , activin or bone morphogenetic protein signaling in cells comprising:

determining a first level of transcription detected in cells in the presence of a complex of interacting proteins comprising a Smad protein, a Smad protein co-repressor and a CtBP protein before addition of a test compound;

contacting said cells with the test compound; and

determining a second level of transcription detected in cells in the presence of a complex of interacting proteins comprising a Smad protein, a Smad protein co-repressor and a CtBP protein after addition of the test compound, wherein a decrease in the level of repression of transcription induced by the presence of the complex of interacting proteins comprising the Smad protein, the Smad protein co-repressor and the CtBP protein

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Conclude
is indicative of the ability of the test compound to interfere with transcriptional repression and to prevent repression of transcription that is produced by a TGF- β , activin or bone morphogenetic protein signal in cells.

Claim 2 (currently amended): The method of claim 1 wherein transcription levels both before and after addition of the test compound are detected in cells in the presence of a Smad protein, a CtBP protein, and a Smad co-repressor protein selected from the group consisting of Evi-1, TGIF, SIP1, and Schnurri.

Claim 3 (original): The method of claim 1 wherein the Smad protein is *Drosophila* Mad or Medea.

Claim 4 (currently amended): The method of claim 1 wherein the CtBP protein is dCtBP, CtBP2 or ~~any~~ a homologue of ~~CtBP~~ dCtBP.

Claims 5-8 (canceled).
